Chris.English@CH2M.com
02/01/2005 06:32 AM

To

Subject Sauget Area 2 - Weekly Oversight Report for the Week Ending January 28, 2005

Nabil and Sandy,

Please find attached a weekly report summarizing construction activities at Sauget Area 2, Site R, during the week ending January 28, 2005. Please let us know if you have any questions about this document.

<<SA2_weekly_report 01-28-05.doc>>

Thanks,

Chris

Chris English, P.E.
CH2M HILL
727 North First Street, Suite 400
St. Louis, MO 63102
Phone: (314) 421-0313 ext. 221
E-fax: (414) 454-8738
Cell: (314) 749-1550

SA2_weekly_report 01-28-05.doc

Weekly Summary Report
USEPA Oversight, Sauget Area 2, Sauget, IL
WA No. 224-RXBF-05XX / Contract No. 68-W6-0025

Week Ending Friday, January 28, 2005

This report summarizes the Interim Remedial Action (IRA) work conducted by Solutia and its contractors from January 24, 2005 through January 28, 2005 at Site R, Sauget Area 2. Ongoing IRA fieldwork consists of site grading and stormwater management. Additional activities completed during the week included redevelopment of piezometers associated with the Groundwater Migration Control System (GMCS).

Contractors Onsite

Philip Services Corporation (PSC) (contractor for earthwork/stormwater management)
Roberts Environmental Drilling Inc. (Roberts) (drilling contractor for redeveloping piezometers)
URS (primary consultant for Solutia)

Work Performed This Week

Site activities during the reporting period included the continuation of site grading activities, finishing the rough grade near Extraction Well 2 (EW-2), and stormwater management. Solutia completed the redevelopment of the eight GMCS piezometers during the week.

Barrier wall cap construction and slurry stabilization are expected to resume during the upcoming weeks.

Groundwater Migration Control System (GMCS)

The river elevation steadily decreased during the week from 393.8 feet above mean sea level (amsl) on January 24, to 391.3 feet amsl on January 30. Correspondingly, the GMCS combined system flow rate increased during the week from 800 gallons per minute (gpm) on January 24, to 1,250 gpm on January 30. The centrally located extraction well, EW-2, pumped at the maximum flow rate of 750 gpm throughout the reporting period. Wells EW-1 and EW-3 located in the north and south of the site pumped approximately between 0-150 gpm and 300-450 gpm, respectively, during the week.

Eight barrier wall piezometers, with four inside and four outside the barrier wall alignment, monitored the groundwater elevations adjacent to the barrier wall alignment during the week. New transducers were installed in P4 piezometer pair on January 24, completing the installation of the new, reportedly 'more accurate' transducers at the eight piezometers. URS manually checked the water levels at each piezometer daily during the week. The manually-read water elevations were found to be consistent with the elevations read by the new transducers. Table 1 shows the river and piezometer water elevations measured at 9:00 AM on January 30, 2005.

Explanation of Gradient Terminology

In the following paragraphs, the term "delta" refers to the gradient across the barrier wall as measured by the groundwater head difference at each piezometer pair, with one well located on

each side of the wall. "Negative delta" values refer to an inward groundwater gradient, toward Site R, when water levels are observed to be lower in the piezometer located inside the barrier wall. Conversely, "positive delta" values refer to an outward groundwater gradient across the barrier wall, toward the river. Under positive delta conditions, the water level in the piezometer located inside the barrier wall is greater than the level in the piezometer on the outside (river side) of the wall.

ROD Performance Metrics (Gradient Across the Barrier Wall)

During the reporting period, piezometer pairs P1, P3, and P4, maintained an inward groundwater gradient across the barrier wall, toward Site R, with a negative delta between approximately 1 and 2 feet. Piezometer pair P2 recorded water levels that ranged from equivalent at the two piezometers to lower in the piezometer located outside the barrier wall, P2W. The delta value at the P2 pair varied between approximately 0 to 2 feet during the week, indicating an outward gradient across the barrier wall at this location.

FFS Performance Metrics (Gradient Between Inside Wall Piezometers and River)

Throughout the reporting period, the four piezometers located inside the barrier wall maintained groundwater elevations equivalent to or lower than the Mississippi River elevation, indicating an inward gradient toward Site R. The inside piezometers recorded water elevations varying between approximately 0 and 3 feet lower than the river level.

Table 1
River and Piezometer Water Elevations – January 30, 2005 (09:00 AM)

	Elevation (ft above mean sea level)
River Level	391.32
Piezometer 1S – inside wall (northern-most pair)	390.80
Piezometer 1N – outside wall (northern-most pair)	392.05
Piezometer 2E – inside wall (north-central pair)	391.37
Piezometer 2W – outside wall (north-central pair)	390.23
Piezometer 3E – inside wall (south-central pair)	389.22
Piezometer 3W – outside wall (south-central pair)	390.35
Piezometer 4E – inside wall (southern-most pair)	390.57
Piezometer 4W – outside wall (southern-most pair)	391.51

Piezometer Redevelopment

During the reporting period, Roberts, as directed by URS, completed the redevelopment of the eight GMCS piezometers, with two piezometers developed during the week, P2E and P4E.

The piezometers were developed using air development methods, and large volumes of groundwater were purged to remove particulate from the wells. Development started at the top of the well screen (approximately 50 to 60 feet below ground surface) and continued with groundwater purged at each 10-foot interval until approximately total depth of the piezometer was encountered. The groundwater was visually observed by URS to improve in turbidity at

each interval before proceeding to the subsequent interval.

Barrier Wall Cap Construction and Site Grading

No new cap construction occurred during the current reporting period; approximately 75 linear feet of barrier wall cap remains to be constructed. Site grading activities continued during the week, with a rough grade completed at the area near EW-2 (approximately between stations 18+00 and 21+00). Initial grading and consolidation of the wettest spoils north of station 18+00 began during the reporting period.

Slurry

No slurry stabilization operations occurred during the reporting period. PSC built holding bins during the week which will be used to contain bulk raw materials (Portland cement and code-L). The blend of materials will be used for slurry stabilization / solidification. PSC worked to dry the spoils and slurry within the containment berms on top of the landfill of excess water, pumping water to the modutanks.

Stormwater

Stormwater from across the remaining exclusion zone at Site R was pumped from ponded areas to the modutanks during the week. Stormwater was flocculated and discharged to the American Bottoms Regional Treatment Facility (ABRTF) on one day during the reporting period.